# Georgetown County Ambient Air Monitoring Stakeholder Group Georgetown, South Carolina

June 7, 2007

Ms. Myra Reece, Chief Bureau of Air Quality SC Department of Health & Environmental Control 2600 Bull Street Columbia, SC 29201

Re: Comments on Network Description and Ambient Air Network Monitoring Plan

Calendar Year 2008

#### Dear Ms. Reece:

The Georgetown County Ambient Air Monitoring Stakeholder Group appreciates the opportunity to provide comments on DHEC's draft Network Description and Ambient Air Network Monitoring Plan, Calendar Year 2008 (the "Plan"). Our membership consists of local government and business interests in Georgetown County, South Carolina. Both local government and industry depend on accurate and representative ambient air quality data to confirm 1) that public health is being protected, 2) that air quality is within state and federal limits, and 3) that Georgetown County is a place where new industry should locate and existing industry can compete successfully in a global marketplace. Ambient air quality data is a key decision point when a new manufacturing facility considers locating in Georgetown County, and when corporate investment decisions are being made to upgrade and expand our existing facilities.

We appreciate the many months of collaborative effort between DHEC's Bureau of Air Quality and our stakeholder group, including your personal participation in the many stakeholder group meetings here in Georgetown. This has certainly been an excellent example of an open and inclusive stakeholder process.

### What have we learned?

Our Stakeholder Group has learned that previously-collected ambient air quality data at the monitors in Georgetown County have been inappropriately impacted by local sources. Analysis of data analysis from the Georgetown CMS, for instance, showed conclusively that dust from a deteriorated state roadway was the primary source of the unusually high particulate levels recorded in 2004 and 2005. This finding was based on an analysis of wind direction during the days with high particulate readings. The high readings were almost always on days when the wind was coming from the south and not from the adjacent industrial facilities. A temporary particulate monitor located on Bourne Street confirmed that these high readings were not observed less than ¼ mile away. The stakeholder group concludes, therefore, that the scale for the Georgetown CMS is "microscale" and that this monitor measures particulates characteristic of a very small radius and is not representative of Georgetown County air quality in any way.

The stakeholder group also learned that previous annual reviews of the ambient air monitoring system in Georgetown County included very thorough instrumentation audits but did not include

audits of compliance with federal monitor siting regulations and guidance. Existing correspondence, however, indicates that problems with the siting of the Georgetown Continuous Monitoring Site (CMS) have been documented since at least 1994<sup>1</sup>. EPA regulations and guidance openly acknowledge that monitor location can have a significant impact on the resulting data, potentially affecting determinations of attainment vs. non-attainment. We agree with the former DHEC manager of ambient air quality monitoring that the Georgetown CMS monitor does not appropriately reflect ambient air quality in the Georgetown area and we recommend the "Plan" be revised to include its immediate discontinuance.

## **Audit of Existing Monitoring Sites**

As a result of stakeholder concerns concerning compliance of monitoring sites with the federal siting criteria, DHEC agreed to conduct an audit of eleven existing monitoring sites located around the state, including the four monitors located in Georgetown. The audit team here consisted of four senior air quality experts from DHEC and four stakeholder group representatives. Following an ISO 14001 environmental audit format, the teams identified the "legal and other requirements" applicable to ambient air monitor siting and created a checklist for the individual monitoring site audits. The audits identified a number of deficiencies which were documented in the completed audit checklist (Attachment 1). The audit of the Georgetown monitors identified serious deficiencies and we feel the "Plan" should include specific corrective actions for the Georgetown CMS and the Howard High School #2 sites.

## Comments on the Plan

On April 26, 2007, the Georgetown County Ambient Air Monitoring Stakeholder Group submitted recommendations (Attachment 2) to you concerning changes we recommended for inclusion in the "Plan." In order of priority, we offered recommendations for the Georgetown CMS monitor, the Howard High School #2 monitor, the Winyah monitor and the Maryville monitor.

Georgetown CMS – We feel the "Plan" fails to adequately address the serious deficiencies that have been documented to exist with this monitor:

- 1. The monitor is located much too close to local sources as documented during the audit.
- 2. The monitor violates numerous federal siting requirements and guidelines.
- 3. The monitor is located less than 50 meters from a bulk material unloading site.
- 4. Our analysis of past data has confirmed that the monitor has been been inappropriately impacted by a state highway whose surface had seriously deteriorated causing excessive dust. This problem was resolved in late 2005 when the SC Highway Department repaired the road.
- 5. The site has been proven to be "microscale" based on data obtained during a special study conducted by DHEC but for which a final report has not yet been published.

<sup>&</sup>lt;sup>1</sup> August 5, 1994 letter from Gene G. Slice, (former ambient air monitoring manager at DHEC) to James A. Joy, III outlining deficiencies with the location of the Georgetown CMS monitor and recommending its discontinuance.

- 6. The site is not located in an area that represents population exposure (exclusively an industrial area).
- 7. Nearby monitors in populated areas indicate air quality meets standards at all times.
- 8. The Georgetown CMS Monitor is not located in a manner that is consistent with how neighboring states locate their ambient air quality monitors, and as a result, data comparison between the states is not possible.
- 9. Data from the Georgetown Monitor gives the public a false impression that Georgetown County air quality is among the worst in the state when, in reality, data from other nearby monitors accurately indicate that our air quality meets all health and environmental standards.

It was for these reasons that our Stakeholder Group recommended discontinuation of the Georgetown CMS monitor and we reiterate that recommendation in these comments on the "Plan."

*Howard High School #2 Monitor* – We feel the "Plan" fails to adequately address the serious deficiencies that have been documented to exist with this monitor:

- 1. The monitor is located much to close to local sources as documented during the audit.
- 2. The monitor violates numerous federal siting requirements and guidelines.
- 3. The monitor is located less than 10 meters from an area where bulk materials are unloaded, stored and loaded again using heavy equipment.
- The site is located within 100 meters of a home with wood burning appliances.
- 5. The site is "microscale" based on its close proximity to these sources.
- 6. The Howard High School #2 monitor is not located in a manner that is consistent with how neighboring states locate their ambient air quality monitors.
- 7. Although this monitor indicates continual compliance with health and environmental standards, the data gives the public a false impression that Georgetown County air quality worse that it would be had the monitor been located in a manner consistent with federal regulations and guidance.
- 8. We strongly disagree with the proposal in the "Plan" that calls for adding a PM<sub>2.5</sub> monitor at this location. Doing so would be a direct violation of 40 CFR 58 Appendix D(1.2)(d) which suggests a "neighborhood scale is more appropriate" and such monitors should not be located "in the immediate vicinity of any single dominant source."

It was for these reasons that our Stakeholder Group recommended discontinuation of the Howard High School #2 monitor and we reiterate that recommendation in these comments on the "Plan."

*Winyah Monitor* – Since our April 26 recommendations, the Winyah monitor has been decommissioned due to construction of a new County Judicial Center at this location.

Maryville Monitor - We concur with DHEC's recommendation that this monitor be discontinued

#### Other Comments and Recommendations

We suggest that <u>all</u> changes planned for the next 18 months (e.g., July 1, 2007 through December 31, 2008) be included with sufficient specificity to document the reasons for the changes. **Until** specific countermeasures to correct the audit deficiencies are incorporated into the "Plan", we feel it is not ready for submittal to EPA.

Following DHEC's review of these and other public comments, and incorporation of appropriate changes to the "Plan," we request the opportunity to again review the draft prior to submittal to ensure that adequate corrective actions have been included. We recognize the tight timing and pledge a very quick turnaround on this review. We appreciate your willingness and commitment to resolve the deficiencies by including specific corrective actions included in the "Plan."

# **Recommended Next Steps**

The federal regulations do not require any ambient air monitoring in Georgetown County. The Stakeholder Group, however, shares your desire to verify, using a properly located monitor, that public health is being protected and ambient air quality standards are being achieved. For this reason, we reiterate our commitment to work with DHEC to identify a new ambient air monitoring site in the City of Georgetown. This new site will be located in a way that meets all federal siting requirements and guidelines. Data from this new monitor will then be consistent with and comparable to monitoring data from other properly-sited monitors in South Carolina or any neighboring state.

Should DHEC desire to continue ambient air quality monitoring in the vicinity of the Georgetown CMS, we recommend a portable monitor be placed at this location from time to time as DHEC deems necessary, but in no case longer than four to six weeks so that data from this microscale source monitor is never eligible for comparison to NAAQS. This practice would be consistent with what we understand occurs in our neighboring states.

#### Summary

As you have stated many times, South Carolina's ambient air monitoring network is the foundation upon which important decisions about public health and compliance with Ambient Air Quality Standards are based. The data produced by this network must be representative, consistent with federal regulations and guidance, and consistent with similar data collected in the neighboring states with which South Carolina competes for jobs and economic development.

It is equally important that the data not trigger unwarranted concerns. High readings due to monitors being located closer to sources than recommended in the guidance, or even closer to these sources than monitors in neighboring states, can and do directly give the City of Georgetown and Georgetown County the "appearance" of having poorer air quality. Improper monitor placement alone could result in an eventual "non-attainment" designation from EPA, severely impacting our area's ability to 1) compete with other states for new industry, 2) create new jobs, and 3) obtain much needed funding for transportation infrastructure.

Myra, we sincerely appreciate the open and inclusive manner in which you personally have managed this process. We commend you on using an internationally-accepted environmental audit process to identify and then correct identified deficiencies in the current ambient air monitoring network. This has been an outstanding example of stakeholder involvement and we appreciate the considerable commitment of your time and Department resources to this effort.

Sincerely,

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Attachment 1: Siting/Network Analysis Checklist - May 3, 2007

Attachment 2: April 26, 2007 letter to Myra Reece containing stakeholder recommendations

for the Monitoring Plan

Cc: Thomas J. Flynn, III – SC DHEC

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